AMENDMENTS TO THE CLAIMS:

1 - 14. (Canceled)

15. (Currently amended) A method of producing a group III nitride compound semiconductor device, comprising ~~steps of~~:

forming a buffer layer of AlN by a sputtering method on a sapphire substrate at a temperature not lower than 400°C; and

forming a group III nitride compound semiconductor layer by a metal organic chemical vapor deposition method on said buffer layer while heating said sapphire substrate.

16. (Currently amended) A producing method according to claim 15, wherein said buffer layer is formed on a face ~~a~~ of said sapphire substrate.

17. (Currently amended) A producing method according to claim 15, wherein a carrier gas comprising one of hydrogen ~~or~~ and nitrogen is used in said metal organic chemical vapor deposition method when said group III nitride compound semiconductor layer at least in contact with said buffer layer is formed.

18. (Currently amended) A method of producing a group III nitride compound semiconductor device, comprising ~~steps of~~:

forming a first group III nitride compound layer on a substrate by a method not using metal organic compounds as raw materials;

heating said first group III nitride compound layer in an atmosphere of a mixture gas ~~containing~~ comprising one of a hydrogen ~~or~~ and nitrogen gas, and an ammonia gas; and

forming a second group III nitride compound semiconductor layer on said first group III nitride compound layer.

19. (Original) A producing method according to claim 18, wherein said substrate comprises sapphire substrate.

20. (Currently amended) A producing method according to claim 19, wherein said first group III nitride compound layer is formed on a face ~~a~~ of said sapphire substrate.

21. (Currently amended) A producing method according to claim 18, wherein said method not using metal organic compounds as raw materials is selected from the group consisting of[:], a sputtering method ~~inclusive of a reactive sputtering method;~~, an evaporation method[;], an ion plating method[;], a laser ablation method[;], and an ECR method.

22. (Original) A producing method according to claim 18, wherein said first group III nitride compound layer comprises $Al_xGa_{1-x}N$ ($0 \leqq x \leqq 1$).

23. (Original) A producing method according to claim 18, wherein said first group III nitride compound layer comprises AlN.

24. (Currently amended) A producing method according to claim 18, wherein a mixture

ratio of said one of said hydrogen gas ~~or~~ and said nitrogen gas, to said ammonia gas is in a range of from 1:0.1 to 1:1 in terms of flow rate ratio.

25. (Currently amended) A producing method according to claim 18, wherein a mixture ratio of said one of said hydrogen gas ~~or~~ and said nitrogen gas, to said ammonia gas is in a range of from 1:0.1 to 1:0.5 in terms of flow rate ratio.

26. (Currently amended) A producing method according to claim 18, wherein a mixture ratio of said one of said hydrogen gas ~~or~~ and said nitrogen gas, to said ammonia gas is ~~substantially~~ approximately 1:0.3 in terms of flow rate ratio.

27. (Original) A producing method according to claim 18, wherein the temperature at which said first group III nitride compound layer is heated is in a range of from 1000°C to 1250°C.

28. (Original) A producing method according to claim 18, wherein said second group III nitride compound semiconductor layer is formed by a method using metal organic compounds as raw materials.

29. (Currently amended) A producing method according to claim 28, wherein said method using metal organic compounds as raw materials ~~is~~ comprises a metal organic chemical vapor deposition method.

30. (Original) A producing method according to claim 29, wherein the temperature for growth of said second group III nitride compound semiconductor by said metal organic chemical vapor deposition method is not lower than 1000°C.

31. (Canceled)

32. (New) A producing method according to claim 15, wherein said forming said group III nitride compound lager semiconductor layer comprises subjecting said buffer layer to a heat treatment in a range of 1050°C to 1200°C before said group III nitride compound semiconductor layer is formed thereon.